

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-111569

(43)Date of publication of application : 12.04.2002

(51)Int.Cl.

H04B 7/26  
H04M 1/00  
H04M 1/663  
H04M 11/00  
H04Q 7/38

(21)Application number : 2000-293393

(71)Applicant : SHARP CORP

(22)Date of filing : 27.09.2000

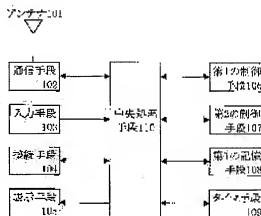
(72)Inventor : NIBE MASAYUKI

(54) PORTABLE EQUIPMENT FOR RADIO COMMUNICATION, METHOD AND APPARATUS FOR PROVIDING ITS SERVICE AND ITS SERVICE PROVIDING SYSTEM

(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide portable equipment for radio communication, a method and an apparatus for providing its service as well as its service which provides a system, capable of automatically turning on/off of a power source to the equipment or switching to an automatic response mode in matching with user's schedule data.

**SOLUTION:** The portable equipment for the radio communication comprises a communication means 102 for receiving the schedule data, including the time information for turning on/off of an operating power source via a network, a first storage means 108 for storing the schedule data, and a first control means 106 for turning on/off of the power source, based on the data stored in the means 108.



[Brief Description of the Drawings]

[Drawing 1] It is the block diagram of the pocket device for radio of the gestalten 1-3 of operation of this invention.

[Drawing 2] It is the block diagram of the input means of the gestalt 3 of operation, and a display means.

[Drawing 3] It is the service provision system configuration Fig. of the gestalten 4-5 of operation.

[Description of Notations]

101 Antenna  
102 Means of Communications  
103,203 Input means  
104 Connecting Means  
105,202 Display means  
106 1st Control Means  
107 2nd Control Means  
108 1st Storage Means  
109 Timer Means  
110 Central-Process Means  
201,301 Pocket device for radio  
302 Personal Computer  
303 Company Server  
304 Provider  
305 Dial Office  
311 Service Provision Equipment

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the power control, its service provision approach, its service provision equipment, and its service provision system of pocket devices for radio, such as a cellular phone and PHS.

[0002]

[Description of the Prior Art] By pocket devices for radio, such as the conventional cellular phone and PHS (Personal Handy-phone System) By the clock built in the pocket device for radio being interlocked with, and having the function which carries out ON OFF of the power source automatically, and the function changed to automatic-answering modes, such as an answering machine function, if a user becomes the predetermined time amount set up beforehand The arrival of a telephone was controlled when it was difficult to answer the telephone of under driving of a vehicle, or the meeting middle class.

[0003] In addition, automatic-answering mode is the answering machine function to perform the transfer to the answering machine service which records the message from a partner for the storage means of a cellular phone, or each telephone company offers, when it is difficult for a user to answer a telephone.

[0004] Moreover, as another function, a message is received automatically, it is the function to send the message of the purport which cannot answer to the partner who has telephoned, for example, when a vehicle is operating, a message, such as "not appearing in a telephone now, since it is under operation", can be sent to the partner who has telephoned automatically.

[0005]

[Problem(s) to be Solved by the Invention] However, by the above-mentioned conventional pocket device for radio, since only any one can set up entering to a power source, or the setup time of the end, a user needs to perform a setup of power-source ON.OFF, and a change in automatic-answering mode manually each time to perform setup/discharge of control of arrival of the mail repeatedly.

[0006] By this, a user forgot to turn off the power carelessly, and contrary to this, he has forgotten [ when it was difficult to appear in the telephone of under driving of a vehicle, or the meeting middle class, a message was received, and ] to switch on a power source and there were problems, such as failing to receive an important telephone.

[0007] It is made in order that this invention may solve the above technical problems, and the purpose is in offering the pocket device for radio which a change in the ON OFF and automatic-answering mode of a power source

of the pocket device for radio can perform automatically according to a user's schedule data, its service provision approach, its service provision equipment, and its service provision system.

[0008]

[Means for Solving the Problem] an input means input schedule data including a hour entry for the pocket device for radio of this invention to perform entering or the end of a power source of operation two or more times in order to solve the above-mentioned technical problem, and the 1st storage means which memorizes said schedule data -- this -- it is characterized by to have the 1st control means which performs ON OFF of a power source based on said schedule data memorized with the 1st storage means.

[0009] moreover, the connecting means linked to the external device which inputs schedule data including a hour entry for the pocket device for radio of this invention to perform ON OFF of a power source of operation and the 1st storage means which memorizes said schedule data -- this -- it is characterized by to have the 1st control means which performs ON OFF of a power source based on said schedule data memorized with the 1st storage means.

[0010] moreover, the means of communications which receives schedule data including a hour entry for the pocket device for radio of this invention to perform ON OFF of a power source of operation through a network and the 1st storage means which memorizes said schedule data -- this -- it is characterized by having the 1st control means which performs ON OFF of a power source based on said schedule data memorized with the 1st storage means.

[0011] According to this invention, input from input means, such as a key input, or connect with the 1st network, and schedule data including the hour entry for performing ON OFF of the power source of the pocket device for radio of operation are inputted, or it receives through the 2nd network, and memorizes with the storage means with which the pocket device for radio was equipped. and the thing automatically done based on these memorized schedule data for the ON OFF of the power source of the pocket device for radio of operation -- a failure of a power source to cut -- or that reverse failure to put in can be prevented and arrival-of-the-mail control can be performed appropriately.

[0012] In addition, with schedule data, the data to which schedules, such as a user's action schedule, were summarized by time series, and the data for performing ON OFF of the power source of the pocket device for radio in the schedule period of operation are included.

[0013] For example, since the period of 9:00 - 11:30, and 12:30-14:30 is difficult for a user to answer a telephone in a schedule including a hour entry like [ the period of 9:00-11:30 / a meeting schedule and the period of 12:30-14:30 / with vehicle ] a migration schedule, the schedule data which make a power source of operation the end are set as this schedule period. Moreover, schedule data [ / in addition to this schedule period ] are set as the data which make a power source of operation entering.

[0014] Power control which makes the power source of the pocket device for radio of operation the being automatic end, and makes a power source of operation being automatic entering since the other time zone can answer a telephone can be performed at the schedule period when it is difficult for a user to answer a telephone based on these schedule data.

[0015] Moreover, this invention is characterized by having the 2nd control means which changes automatic-answering mode based on said schedule data memorized with said 1st storage means in said pocket device for radio.

[0016] changing automatic-answering mode of the pocket device for radio based on the schedule data memorized with the storage means with which the pocket device for radio was equipped according to this invention -- a failure of automatic-answering mode to set up -- or a failure of discharge in the reverse automatic-answering mode to carry out can be prevented, and arrival-of-the-mail control can be performed appropriately.

[0017] Moreover, this invention is characterized by having a display means by said schedule data to display a schedule chart in said pocket device for radio.

[0018] According to this invention, the schedule data of a change in the ON OFF of the power source of the pocket device for radio of operation or automatic-answering mode with display means, such as a liquid crystal screen with which the pocket device for radio was equipped, can be indicated by list. Thereby, schedule data can be checked easily.

[0019] Moreover, the means of communications which receives schedule data including a hour entry for this invention to perform ON OFF of a power source of operation through a network, It is based on the schedule data memorized with the 1st storage means. the 1st storage means which memorizes said schedule data -- this -- To the pocket device for radio equipped with the 1st control means which performs ON OFF of a power source It is the service provision approach of the pocket device for radio of transmitting schedule data. It is characterized by receiving schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device for radio, memorizing the received schedule data, and transmitting the memorized schedule data to said specified pocket device for radio.

[0020] According to this invention, schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device for radio are received, and the schedule data are memorized. And these memorized schedule data can be transmitted to the specified pocket device for radio, and the service which performs ON OFF for the power source of the pocket device for radio can be offered. carrying out ON OFF of the power source of the pocket device for radio of operation automatically by this service -- a failure of a power source to cut -- or that reverse failure to put in can be prevented and arrival-of-the-mail control can be performed appropriately.

[0021] Moreover, this invention is being  
[ they / schedule data including the information which changes automatic-answering mode ] characterized by said received data in the service provision approach of said pocket device for radio.

[0022] changing automatic-answering mode of the pocket device for radio based on the schedule data sent by the user by this service according to this invention -- a failure of automatic-answering mode to set up -- or a failure of discharge in that reverse automatic-answering mode to carry out can be prevented, and arrival-of-the-mail control can be performed appropriately.

[0023] Moreover, the means of communications which receives schedule data including a hour entry for this invention to perform ON OFF of a power source of operation through a network, It is based on the schedule data memorized with the 1st storage means. the 1st storage means which memorizes said schedule data -- this -- To the pocket device for radio equipped with the 1st

control means which performs ON OFF of a power source A  
receiving means to receive schedule data including the  
hour entry for carrying out ON OFF of the power source of  
the pocket device for radio which is service provision  
equipment of the pocket device for radio which transmits  
schedule data, and was specified, It is characterized by  
having the 2nd storage means which memorizes said  
received schedule data, and a transmitting means to  
transmit said memorized schedule data to said specified  
pocket device for radio.

[0024] According to this invention, a receiving means  
receives schedule data including the hour entry for  
carrying out ON OFF of the power source of the specified  
pocket device for radio, and the schedule data are  
memorized for a storage means. And these memorized  
schedule data can be transmitted to the specified pocket  
device for radio with a transmitting means, and the  
service which performs ON OFF for the power source of the  
pocket device for radio can be offered. carrying out ON  
OFF of the power source of the pocket device for radio of  
operation automatically by this service -- a failure of a  
power source to cut -- or that reverse failure to put in  
can be prevented and arrival-of-the-mail control can be  
performed appropriately.

[0025] Moreover, the input device into which this  
invention inputs schedule data and service provision  
equipment connected to said input device through the 1st  
network, In the service provision system of the pocket  
device for radio which consists of a pocket device for  
radio connected with said service provision equipment  
through the 2nd network said input unit An input means to  
input schedule data including the hour entry for carrying  
out ON OFF of the power source of the specified pocket  
device for radio, It has the 1st transmitting means which  
transmits the schedule data inputted with this input  
means through the 1st network. Said service provision  
equipment A receiving means to receive the schedule data  
transmitted from the 1st transmitting means of said input  
device through the 1st network, The 2nd storage means  
which memorizes the schedule data received with this  
receiving means, It has the 2nd transmitting means which  
transmits the schedule data memorized with the 2nd  
storage means through the 2nd network. this -- said  
pocket device for radio The means of communications which  
receives the schedule data transmitted from the 2nd  
transmitting means of said service provision equipment  
through the 2nd network, the 1st storage means which  
memorizes the schedule data received by this means of  
communications -- this -- it is characterized by having

the 1st control means which performs ON OFF of a power source based on the schedule data memorized with the 1st storage means.

[0026] According to this invention, with the input unit which inputs schedule data, schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device for radio are inputted, and it transmits to service provision equipment through the 1st network. And the received schedule data can be memorized for a storage means, it can transmit to the pocket device for radio specified through the 2nd network further, and service provision equipment can offer the service which performs ON OFF for the power source of the pocket device for radio. carrying out ON OFF of the power source of the pocket device for radio of operation automatically by this service -- a failure of a power source to cut -- or that reverse failure to put in can be prevented and arrival-of-the-mail control can be performed appropriately.

[0027] Moreover, this invention is characterized by having the 2nd control means which changes the automatic-answering mode of said pocket device for radio based on the schedule data memorized with the 1st storage means of said pocket device for radio in the service provision system of said pocket device for radio.

[0028] changing automatic-answering mode of the pocket device for radio based on the schedule data sent by the user by this service according to this invention -- a failure of automatic-answering mode to set up -- or a failure of discharge in that reverse automatic-answering mode to carry out can be prevented, and arrival-of-the-mail control can be performed appropriately.

[0029]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained with reference to a drawing.

[0030]

[Gestalt 1 of operation] drawing 1 is the block diagram showing the outline configuration of the pocket device for radio of the gestalt 1 of operation by this invention.

[0031] As shown in drawing 1, the pocket device for radio of the gestalt of this operation An input means 103 to input schedule data in the numerical keypad with which the pocket device for radio was equipped in schedule data



including the hour entry for performing entering or the end of a power source of operation two or more times, an arrow key, etc., In order to input schedule data Cable connection of an external device and RS232C, such as a personal computer and PDA (Personal Digital (Data) Assistants: personal information terminal), IEEE1394, etc., Or the connecting means 104 which makes wireless connection of IrDA (infrared data association), Bluetooth, etc., The means of communications 102 which receives schedule data through a network, The 1st storage means 108 which memorizes schedule data, and the 1st control means 106 which performs ON OFF of a power source based on the schedule data memorized with the 1st storage means 108, Based on the schedule data memorized with the 1st storage means 108, it consists of the 2nd control means 107 which changes the automatic-answering mode of the pocket device for radio, and a display means 105 to display the schedule chart by schedule data.

[0032] Furthermore, the pocket device for radio of the gestalt of this operation consists of an antenna 101 formed in means of communications 102 in order to radiocommunicate, a timer means 109 to count the internal clock of the pocket device for radio etc., and a central-process means 110 to control each aforementioned configuration means.

[0033] In addition, means of communications 102 also has the function to perform the usual message and the transmission and reception for data communication.

[0034] Schedule data including the hour entry for performing ON OFF of the power source of operation inputted into the pocket device for radio of the gestalt of this operation communicate by the means of communications 102 which contains an antenna 101 through a network, let the central-process means 110 pass, and are memorized by the 1st storage means 108.

[0035] With these memorized schedule data, the period of 9:00-11:30 contains a schedule including a meeting schedule and the hour entry which summarized schedules, such as a user's action schedule, by time series like [ the period of 12:30-14:30 / with vehicle ] migration schedule, and the data which determine the mode of operation of the pocket device for radio in each schedule period.

[0036] In addition, modes of operation are the mode of entering to a power source of operation, the mode of the end of a power source of operation, and automatic-

answering mode, and it mentions later about automatic-  
answering mode here.

[0037] Since the period of 9:00 - 11:30, and 12:30-14:30 is difficult for a user to answer a telephone in the case of these schedules, the data with which the data which determine the mode of operation of the pocket device for radio corresponding to this schedule period make a power source of operation the end are set up. Moreover, the data with which the data which determine the mode of operation of the pocket device [ / in addition to this schedule period ] for radio make a power source of operation entering are set up.

[0038] The central-process means 110 compares these memorized schedule data with the time amount of a timer means 109 to count an internal clock etc. The schedule is contained in the user at the time zone of 9:00 - 11:30, and 12:30-14:30. Moreover, the data which determine the mode of operation of the pocket device for radio of this schedule period issue [ checking that the data which make a power source of operation the end are set up, and making the end the power source of the pocket device for radio of operation to the 1st control means 106 which is a power control means, and ] directions. And the 1st control means 106 makes the end the power source of the pocket device for radio of operation.

[0039] The central-process means 110 in moreover, the other time zone (the above-mentioned example time zones other than 9:00 - 11:30 and 12:30 - 14:30) It checks that the data with which the data which the schedule is not contained in a user and determine the mode of operation of the pocket device for radio of this schedule period make a power source of operation entering are set up. Directions are issued

[ making entering the power source of the pocket device for radio of operation to the 1st control means 106 which is a power control means, and ]. And the 1st control means 106 makes entering the power source of the pocket device for radio of operation.

[0040] As mentioned above, in the pocket device for radio of the gestalt of this operation, it receives through a network and schedule data including the hour entry for performing ON OFF of a power source of operation are memorized with the storage means with which the pocket device for radio was equipped. and the thing automatically done based on these memorized schedule data for the ON OFF of the power source of the pocket device

for radio of operation -- a failure of a power source to cut -- or that reverse failure to put in can be prevented and arrival-of-the-mail control can be performed appropriately.

[0041] In addition, in the gestalt of this operation, schedule data are inputted from at least one means among means of communications 102, the input means 103, and a connecting means 104, are inputted from these two means, and are inputted from these three means.

[0042] Here, what inputs schedule data is explained using a connecting means 104.

[0043] A user connects the schedule data to which schedules, such as an action schedule, were summarized by time series by the connecting means 104 which makes wireless connection of cable connection of an external device and RS232C, such as a personal computer and PDA, IEEE1394, etc. or IrDA, Bluetooth, etc., makes it the schedule pipe \*\* software of external devices, such as a personal computer and PDA, interlocked with, and inputs schedule data including the hour entry for performing ON OFF of a power source of operation. And the schedule data inputted by the connecting means 104 let the central-process means 110 pass, and are memorized by the 1st storage means 108.

[0044] As mentioned above, by the pocket device for radio of the gestalt of this operation, you can make it the schedule data which could be interlocked with the schedule pipe \*\* software of external devices, such as a personal computer and PDA, and could save the time and effort of an input in inputting schedule data by cable connection or wireless connection, and have been managed by external devices, such as a personal computer and PDA, interlocked with, and power-source ON OFF control of the pocket device for radio and a setup in automatic transfer mode can be performed.

[0045] In addition, the gestalt 3 of the below-mentioned operation explains the input of the input means 103 of schedule data.

[0046] As a gestalt 2 of the [gestalt 2 of operation] operation, a setup in the automatic-answering mode by the 2nd control means 107 of drawing 1 is explained using drawing 1.

[0047] The data for setting up automatic-answering mode are contained in schedule data including the hour entry

for performing ON OFF of the power source of operation  
inputted into the pocket device for radio of the gestalt  
of this operation.

[0048] First, like the gestalt 1 of the above-mentioned implementation, the schedule data inputted from means of communications 102, the input means 103, or the connecting means 104 let the central-process means 110 pass, and are memorized by the 1st storage means 108.

[0049] With these memorized schedule data, the period of 9:00-11:30 shall contain a schedule including a meeting schedule and the hour entry which summarized schedules, such as a user's action schedule, by time series like [ the period of 12:30-14:30 / with vehicle ] migration schedule, and the data which determine the mode of operation of the pocket device for radio in each schedule period like the gestalt 1 of the above-mentioned operation.

[0050] Since the period of 9:00 - 11:30, and 12:30-14:30 is difficult for a user to answer a telephone in the case of these schedules, the data which set up automatic-answering mode are set up with the gestalt of this operation as data which determines the mode of operation of the pocket device for radio corresponding to this schedule period. Moreover, the data of which the data which determine the mode of operation of the pocket device  
[ / in addition to this schedule period ] for radio  
cancel automatic-answering mode are set up.

[0051] The central-process means 110 compares these memorized schedule data with the time amount of a timer means 109 to count an internal clock etc. The schedule is contained in the user at the time zone of 9:00 - 11:30, and 12:30-14:30. Moreover, it checks that the data with which the data which determine the mode of operation of the pocket device for radio of this schedule period set up automatic-answering mode are set up. Directions are issued so that the automatic-answering mode of the pocket device for radio may be set up to the 2nd control means 107 which changes automatic-answering mode.

[0052] And the 2nd control means 107 sets up automatic-answering modes, such as an answering machine of the pocket device for radio. The central-process means 110 in moreover, the other time zone (the above-mentioned example time zones other than 9:00 - 11:30 and 12:30 - 14:30) It checks that the data of which the data which the schedule is not contained in a user and determine the

mode of operation of the pocket device for radio of this schedule period cancel automatic-answering mode are set up. Directions are issued [ making close the power source of the pocket device for radio of operation to the 2nd control means 107 which changes automatic-answering mode, and ]. And the 2nd control means 107 cancels the automatic-answering mode of the pocket device for radio.

[0053] As mentioned above, in the pocket device for radio of the gestalt of this operation, the schedule data containing the data for setting up automatic-answering mode are inputted, and it memorizes with a storage means. and the thing for which automatic-answering mode of the pocket device for radio is changed based on these memorized schedule data -- a failure of automatic-answering mode to set up -- or a failure of discharge in that reverse automatic-answering mode to carry out can be prevented, and arrival-of-the-mail control can be performed appropriately.

[0054] In addition, automatic-answering mode is the answering machine function to perform the transfer to the answering machine service which records the message from a partner for the storage means of a cellular phone, or each telephone company offers, when it is difficult for a user to answer a telephone.

[0055] Moreover, as another function, a message is received automatically, it is the function to send the message of the purport which cannot answer to the partner who has telephoned, for example, when a vehicle is operating, a message, such as "not appearing in a telephone now, since it is under operation", can be sent to the partner who has telephoned automatically.

[0056] As a gestalt 3 of the [gestalt 3 of operation] operation, the input means 103 and the display means 105 in drawing 1 are explained using drawing 1 and drawing 2.

[0057] With the gestalt of this operation, in the gestalten 1 and 2 of the above-mentioned implementation, the schedule data memorized by the 1st storage means 108 are checked with the display means 105, and the schedule data are explained about performing alter operation, such as an addition, correction, and deletion, with the input means 103.

[0058] A user inputs the schedule data to which schedules, such as an action schedule, were summarized by time

series with the input means 103 with which the pocket device for radio was equipped, such as a numerical keypad and an arrow key. And the schedule data inputted with the input means 103 let the central-process means 110 pass, and are memorized by the 1st storage means 108.

[0059] Moreover, the schedule data of a change in the ON OFF of the power source of the pocket device for radio of operation or automatic-answering mode with the display means 105, such as a liquid crystal screen with which the pocket device for radio was equipped, can be indicated by list.

[0060] The input means with which the pocket device for radio of the gestalt of this operation was equipped in drawing 2 , and a display means are explained.

[0061] The pocket device 201 for radio is equipped with the display means 202, such as a liquid crystal screen, and the input means 203 which is the key input which the four-directions sections 2031-2034 and a center section 2035 elliptical [ long by its side ] can depress. In addition, the display means 202 corresponds with 105 of drawing 1 , and the input means 203 corresponds with 103 of drawing 1 .

[0062] The schedule list display 2021 and the display samples 2022a-2022c are displayed on the display means 202.

[0063] Here, the schedule list display 2021 is a list display which displayed respectively the class (mode of operation of the pocket device for radio) of schedule data which set up the schedule data of the days from 0:00 to 24:00 with the graduation by one time basis in the lengthwise direction by classification by color of a graphic form, or class division of a half-tone-dot-meshing display.

[0064] The display samples 2022a-2022c are display samples which showed the semantics of the graphic form which displayed respectively the class (mode of operation of the pocket device for radio) of schedule data by classification by color of a graphic form, or class division of a half-tone-dot-meshing display by the schedule list display 2021.

[0065] The graphic display 2022a indicates the schedule period containing a power source of operation to be, the graphic display 2022b indicates the schedule period of the power-source end of operation to be, and 2022c are

graphic displays which show the schedule period which  
sets up automatic transfer mode.

[0066] The contents of the schedule list display 2021 shown in the gestalt of this operation show that the period of 0:00-9:00, 11:30 - 12:30, and 14:30-24:00 is a schedule period containing a power source of operation, the period of 9:00-11:30 is a schedule period which sets up automatic transfer mode, and the period of 12:30-14:30 is a schedule period of the power-source end of operation.

[0067] Moreover, the graphic display 2023 of the arrow down shown in the schedule list display 2021 is a graphic display which shows the schedule period under alter operation in this time by actuation of the input means 203, by operating the up key 2031 and the lower key 2032 of the input means 203, moves the display position of the graphic display 2023 of an arrow down up and down, and can perform extension of a schedule period, and adjustment of compaction.

[0068] Moreover, in order to change the class (mode of operation) of schedule data, the change of a setup in the mode containing a power source of operation, power-source end mode of operation, and automatic transfer mode can be performed by operating the left part key 2033 and the right-part key 2034 of the input means 203. By this mode-of-operation change actuation, the graphic form of the schedule period under alter operation in this time shown in the schedule list display 2021 will be changed to graphic-display 2022c, if it is the mode containing a power source of operation, it is in graphic-display 2022a and power-source end mode of operation and it is a setup in graphic-display 2022b and automatic transfer mode.

[0069] Moreover, in order to determine the class (mode of operation) of the schedule period set up with the above-mentioned input means 203, and schedule data, schedule data are determined by pressing the center-section key 2035.

[0070] In addition, with the gestalt of this operation, although schedule data were inputted with the input means 103, means of communications 102 or a connecting means 104 may perform.

[0071] As mentioned above, by the pocket device for radio of the gestalt of this operation, with display means, such as a liquid crystal screen, the schedule data of a change in the ON OFF of the power source of the pocket device for radio of operation or automatic-answering mode

can be indicated by list, and schedule data can be checked easily by this, and an input means can perform simply and exactly alter operation, such as addition of schedule data, correction, and deletion.

[0072] As a gestalt 4 of the [gestalt 4 of operation] operation, the service provision system using the personal digital assistant machine for radio equipped with the function of the gestalten 1-3 of the above-mentioned implementation, the service provision approach, and the service provision equipment used for it are explained using drawing 3.

[0073] The service provision system of the pocket device for radio of the gestalt of this operation consists of a personal computer 302 which is the input unit which inputs schedule data, service provision equipment 311, connected to the personal computer 302 through the 1st network, and a pocket device 301 for radio connected with service provision equipment 311 through the 2nd network. In addition, the pocket device 301 for radio is equipped with the function of the gestalten 1-3 of the above-mentioned implementation, and schedule data are what was explained with the gestalt 1 of the above-mentioned implementation.

[0074] And in the case of the gestalt of this operation, the 1st network is equivalent to the intranet 307 which connects a personal computer 302 and the company servers 303, such as a server currently installed in the firm, the Internet 308 which connects a personal computer 302, or the company server 303 and service provision equipment 311, or the telephone line 309. Moreover, the 2nd network is equivalent to the radio 310 linked to service provision equipment 311 and the personal digital assistant machine 301 for radio through a provider 304 or a dial office 305.

[0075] The personal computer 302 which is an input unit is equipped with an input means input schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device 301 for radio, and a transmitting means transmit the schedule data inputted with the input means through the 1st network, and may be used as the pocket device 301 for radio personal computer connection 306 by wireless connection of cable connection or IrDA, such as RS232C and IEEE1394, Bluetooth, etc.

[0076] Service provision equipment 311 is equipped with a receiving means to receive the schedule data transmitted



from the transmitting means of a personal computer through the 1st network, the 2nd storage means which memorizes the schedule data which received with the receiving means, and a transmitting means to transmit the schedule data memorized with the 2nd storage means through the 2nd network.

[0077] The pocket device 301 for radio is equipped with a storage means 108 to memorize the schedule data which received the schedule data transmitted from the transmitting means of service provision equipment 311 by the means of communications 102 which receives through the 2nd network, and means of communications 102, and the 1st control means 106 which performs ON OFF of a power source based on the schedule data memorized with the storage means 108 (refer to drawing 1 ).

[0078] in addition, the personal computer 302 which the input of schedule data is inputted with the input means of the pocket device 301 for radio, and you may make it input it into a personal computer 302 through the personal computer connection 306, it builds in schedule pipe \*\* software, and can perform a schedule input -- therefore, you may input. Moreover, a personal computer 302 can also replace PDA equipped with the schedule function manager.

[0079] If the service provision system of the pocket device for radio of the gestalt of such this operation is used The means of communications 102 which receives schedule data including the hour entry for performing ON OFF of a power source of operation through a network, To the pocket device 301 for radio equipped with the 1st storage means 108 which memorizes schedule data, and the 1st control means 107 which performs ON OFF of a power source based on the schedule data memorized with the 1st storage means 108 Schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device 301 for radio are received. Service of a pocket device for radio which is transmitted to the pocket device 301 for radio which the received schedule data were memorized [ device ] and had the memorized schedule data specified can be offered.

[0080] as mentioned above, by the service provision system or the service provision approach of the pocket device for radio of this operation [ of a gestalt ] Schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device 301 for radio A user inputs from

the pocket device 301 for radio, or a personal computer 302. And the inputted schedule data are received and memorized by the personal computer 302 or the company server 303. The schedule data are transmitted to the specified pocket device 301 for radio using the connection service of a provider's 304 Internet 308, and the telephone line 309 of a dial office 305.

[0081] moreover, with the service provision equipment of the pocket device for radio of the gestalt of this operation Schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device 301 for radio A user inputs from the pocket device 301 for radio, or a personal computer 302, and the receiving means of a personal computer 302 or the company server 303 receives the inputted schedule data. It memorizes with a storage means and has a transmitting means to transmit the schedule data to the specified pocket device 301 for radio using the connection service of a provider's 304 Internet 308, and the telephone line 309 of a dial office 305.

[0082] therefore, it applies to the schedule data memorized by the personal computer 302 and the company server 303 even from the going-out place -- making -- the power source of the pocket device for radio of operation -- automatic -- ON OFF -- it can carry out -- a failure of a power source to cut -- or the reverse failure to put in can be prevented and arrival-of-the-mail control can be performed appropriately.

[0083] Moreover, in the gestalt of this operation, the schedule data memorized by the personal computer 302 and the company server 303 by transmitting to a personal computer 302 or the company server 303, and memorizing by the Internet 308 or the telephone line 309 can be changed even from a going-out place by transmitting the schedule data which carried out the direct input by the pocket device 301 for radio to a provider 304 or a dial office 305 by radio 310.

[0084] What is made to include the information which changes automatic-answering mode to the schedule data of the gestalt 4 of the above-mentioned implementation as a gestalt 5 of the [gestalt 5 of operation] operation, and is transmitted and received is explained.

[0085] That is, with the gestalt of this operation, automatic-answering mode which was explained to schedule data with the gestalt 2 of the above-mentioned

implementation is included in the gestalt 4 of the above-mentioned implementation, and it is the same as that of the gestalt 4 of the above-mentioned implementation except this.

[0086] therefore, the thing for which according to the gestalt of this operation it is made to apply to the schedule data memorized by the personal computer 302 and the company server 303 even from the going-out place, and automatic-answering mode of the pocket device for radio is changed -- a failure of automatic-answering mode to set up -- or a failure of discharge in the reverse automatic-answering mode to carry out can be prevented, and arrival-of-the-mail control can be performed appropriately.

[0087]

[Effect of the Invention] as mentioned above, the thing which according to this invention input schedule data with an input means, or connect with a network, and it inputs, or it receives through a network, and is automatically done based on these schedule data for the ON OFF of the power source of the pocket device for radio of operation -- a failure of a power source to cut -- or that reverse failure to put in can be prevented and arrival-of-the-mail control can be performed appropriately.

[0088] moreover, the thing for which automatic-answering mode of the pocket device for radio is changed based on said schedule data -- a failure of automatic-answering mode to set up -- or a failure of discharge in the reverse automatic-answering mode to carry out can be prevented, and arrival-of-the-mail control can be performed appropriately.

[0089] Moreover, it is made to apply to the schedule data memorized by the personal computer and the company server even from the going-out place, and the pocket device for radio which ON OFF of the power source of the pocket device for radio of operation can be carried out automatically, and can perform the change in automatic-answering mode, its service provision approach, its service provision equipment, and its service provision system are realized.

[Claim(s)]

[Claim 1] an input means to input schedule data including the hour entry for performing entering or the end of a power source of operation two or more times, and the 1st storage means which memorizes said schedule data -- this -- the pocket device for radio characterized by to have the 1st control means which performs ON OFF of a power source based on said schedule data memorized with the 1st storage means.

[Claim 2] the connecting means linked to the external device which inputs schedule data including the hour entry for performing ON OFF of a power source of operation, and the 1st storage means which memorizes said schedule data -- this -- the pocket device for radio characterized by having the 1st control means which performs ON OFF of a power source based on said schedule data memorized with the 1st storage means.

[Claim 3] the means of communications which receives schedule data including the hour entry for performing ON OFF of a power source of operation through a network, and the 1st storage means which memorizes said schedule data -- this -- the pocket device for radio characterized by having the 1st control means which performs ON OFF of a power source based on said schedule data memorized with the 1st storage means.

[Claim 4] The pocket device for radio characterized by having the 2nd control means which changes automatic-answering mode based on said schedule data memorized with said 1st storage means in the pocket device for radio according to claim 1, 2, or 3.

[Claim 5] The pocket device for radio characterized by having a display means by said schedule data to display a schedule chart, in the pocket device for radio according to claim 1, 2, 3, or 4.

[Claim 6] The means of communications which receives schedule data including the hour entry for performing ON OFF of a power source of operation through a network, It is based on the schedule data memorized with the 1st storage means. the 1st storage means which memorizes said schedule data -- this -- To the pocket device for radio equipped with the 1st control means which performs ON OFF of a power source It is the service provision approach of the pocket device for radio of transmitting schedule data. Schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device for radio are received. The service provision approach of the pocket device for radio characterized by memorizing

the received schedule data and transmitting the memorized schedule data to said specified pocket device for radio.

[Claim 7] It is the service provision approach of the pocket device for radio by which it is being [ they / schedule data including the information to which said received data change automatic-answering mode in the service provision approach of the pocket device for radio according to claim 6 ] characterized.

[Claim 8] The means of communications which receives schedule data including the hour entry for performing ON OFF of a power source of operation through a network, It is based on the schedule data memorized with the 1st storage means. the 1st storage means which memorizes said schedule data -- this -- To the pocket device for radio equipped with the 1st control means which performs ON OFF of a power source A receiving means to receive schedule data including the hour entry for carrying out ON OFF of the power source of the pocket device for radio which is service provision equipment of the pocket device for radio which transmits schedule data, and was specified, Service provision equipment of the pocket device for radio characterized by having the 2nd storage means which memorizes said received schedule data, and a transmitting means to transmit said memorized schedule data to said specified pocket device for radio.

[Claim 9] The input device which inputs schedule data, and the service provision equipment connected to said input device through the 1st network, In the service provision system of the pocket device for radio which consists of a pocket device for radio connected with said service provision equipment through the 2nd network said input unit An input means to input schedule data including the hour entry for carrying out ON OFF of the power source of the specified pocket device for radio, It has the 1st transmitting means which transmits the schedule data inputted with this input means through the 1st network. Said service provision equipment A receiving means to receive the schedule data transmitted from the 1st transmitting means of said input device through the 1st network, The 2nd storage means which memorizes the schedule data received with this receiving means, It has the 2nd transmitting means which transmits the schedule data memorized with the 2nd storage means through the 2nd network. this -- said pocket device for radio The means of communications which receives the schedule data transmitted from the 2nd transmitting means of said service provision equipment through the 2nd network, the 1st storage means which memorizes the schedule data